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L8 and ((435/110)!.CCLS.)	0

Database: US Patents Full-Text Database
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JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

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Search History

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Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB; PLUR=YES; OP=AND		
L16	L8 and ((435/110)!.CCLS.)	0	L16
L15	L8 and ((435/109)!.CCLS.)	0	L15
L14	L8 and ((435/105)!.CCLS.)	0	L14
L13	L8 and ((435/100)!.CCLS.)	0	L13
L12	L8 and ((435/72)!.CCLS.)	0	L12
L11	L8 and ((536/23.1)!.CCLS.)	68	L11
L10	L8 and ((536/1.11)!.CCLS.)	1	L10
L9	L8 and ((424/78.08)!.CCLS.)	0	L9
L8	L6 and l7	393	L8
L7	stable near6 (preparation or formulation) or control$ near3 releas$	74575	L7
L6	l4 and l5	678	L6
L5	preserv$	199179	L5
L4	l1 and l2 and l3	1261	L4
L3	(aspartic or glutamic or citric or tartaric) adj acid	92859	L3
L2	saccharide or glucose or fructose or galactose or sucrose or maltose or lactose or trehalose or sorbitol or mannitol	163727	L2
L1	gene near5 (preparation or formulation)	3521	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 1 of 1 returned.

1. Document ID: US 6326481 B1

L10: Entry 1 of 1 File: USPT Dec 4, 2001

US-PAT-NO: 6326481
DOCUMENT-IDENTIFIER: US 6326481 B1

TITLE: Molecules of the AIP-related protein family and uses thereof

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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Terms	Documents
L8 and ((536/1.11)!.CCLS.)	1

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(FILE 'HOME' ENTERED AT 17:25:24 ON 16 OCT 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 17:26:21 ON 16 OCT 2002

L1 5504 S GENE(5A)(PREPARATION OR FORMULATION)
L2 692621 S SACCHARIDE OR LYSINE OR ASPARAGENE OR HISTIDINE OR TYROSINE O
L3 1434240 S GLUCOSE OR GALACTOSE OR FRUCTOSE OR SUCROSE OR MALTOSE OR LAC
L4 292605 S (GLUTAMIC OR ASPARTIC OR CITRIC OR TARTARIC)(W)ACID
L5 427 S L1 AND L2
L6 11 S L5 AND L3 AND L4
L7 14 S L1 AND L3 AND L4
L8 11 DUP REM L6 (0 DUPLICATES REMOVED)
L9 14 DUP REM L7 (0 DUPLICATES REMOVED)

=> d au ti so ab 1-11 l8

L8 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Farwick, Mike; Mockel, Bettina; Pfefferle, Walter
TI Use of ptsH gene of Corynebacterium glutamicum for L-**lysine** biosynthesis
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187. CODEN: USXXCO
AB The invention relates to the ptsH gene of Corynebacterium glutamicum coding for component H of the phosphotransferase system. Also provided is a process for the fermentative prodn. of L-amino acids with enhancement of the ptsH gene and the use of the above polynucleotides as primer or hybridization probe. In another embodiment, mutants of the ptsH gene are provided.

L8 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Nucleotide sequences coding for the genes sucC and sucD
SO U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 728,498. CODEN: USXXCO
AB The invention provides polynucleotides coding for the genes sucC and sucD and for the resulting amino acids which encode for the enzyme suuccinyl CoA synthetase. Also provided is a process for the fermentative prodn. of L-amino acids using coryneform bacteria in which the genes are present in attenuated form, and the use of the polynucleotide sequences as hybridization probe. Thus the genes sucC and sucD from Corynebacterium glutamicum ATCC 13032 were identified and isolated from a C. glutamicum sequence library. Inactivation of either gene increased yields of L-**glutamic acid** from C. glutamicum. Inactivation of sucC increased the yield of **glutamic acid** from 20 mg/L to 154 mg/L. Inactivation of sucD had a similar but smaller effect.

L8 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, K. Madhavan; Mockel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Protein and gene sequence of the cma gene encoded cyclopropane-mycolic acid synthase of Corynebacterium glutamicum
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 577,857,

abandoned.
CODEN: USXXCO

AB The invention relates to a genetically modified coryneform bacterium, the cma gene of which is amplified, and an isolated polynucleotide which codes for cyclopropane-mycolic acid synthase from coryneform bacteria, and also a method for the fermentative prepn. of L-amino acids with amplification of the cma gene in the bacteria and the use of the polynucleotide as a primer or hydridization probe.

L8 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, Madhavan; Moeckel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Genetically modified Coryneform bacteria with overexpressed cma **gene** and uses thereof in fermentative **preparation** of L-amino acids
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2

AB This invention relates to a genetically modified coryneform bacterium, the cma gene of which is over-expressed, and to an isolated polynucleotide, which codes for cyclopropane-mycolic acid synthase from coryneform bacteria and to a process for the fermentative prodn. of L-amino acids with amplification of the cma gene in the bacteria and to the use of the polynucleotide as a primer or hybridization probe. The invention provides novel auxiliaries for the improved fermentative prodn. of amino acids, in particular L-**lysine** and L-glutamate. Sequences of Corynebacterium glutamicum cma gene are also disclosed. Control cells transformed with the empty expression vector produced almost the same amt. of L-**lysine** and L-glutamate as cells transformed with the vector contg. the cma gene.

L8 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Nakai, Yuta; Ito, Hisao; Kurahashi, Osamu
TI Process for producing l-amino acid and novel gene
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

AB A gene encoding **fructose** phosphotransferase (I) of Escherichia coli is transferred into a coryneform bacteria capable of producing L-amino acids such as L-**lysine** and thus the **fructose** phosphotransferase activity is potentiated, thereby improving the L-amino acid productivity. Cloning of the I **gene** of E. coli, **prepn**. of recombinant Corynebacterium lactofermentum by elec. pulse-mediated transformation, fermn. of L-**lysine** and L-**glutamic acid** with the recombinant C. lactofermentum were shown. Also cloning of I gene of C. lactofermentum ATCC13869 was shown.

L8 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Corynebacterium succinate dehydrogenase genes sdhA, sdhB, and sdhC and amino acid production with recombinant coryneform bacteria
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW

AB Genes sdhA, sdhB, and sdhC for subunits of C. glutamicum succinate dehydrogenase are disclosed. Coryneform bacteria with one of these genes inactivated may be used to produce amino acids. Thus, C. glutamicum with sdhA insertionally inactivated was cultured to produce 155 mg **glutamic acid**/L while the parent strain only produced 41

mg/L.

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko; Nagahara, Shunji
TI Stable therapeutic **gene preparations**
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
AB Disclosed are **formulations** for **gene** therapy capable of sustaining high stability during the prodn. process and storage. These formulations contain **saccharides**, **non-hydrophobic amino acids**, and/or org. acids having .gtoreq.2 carboxyl groups (excluding amino acids), or collagen or gelatin and at least one amino acid. A sustained-release stick prepn. was prepd. from 100 .mu.g/mL plasmid vector pCAHST-1 (encoding FGF-4) soln. 80 mL, 0.86 % atelocollagen soln. 29.1, water 60 g, and 11 mg/mL **glucose** soln. 10 mL.

L8 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Tsuchiya, Makoto; Miwa, Kiyoshi
TI Sucrase gene of coryneform bacteria and manufacture of amino acids or nucleic acids with recombinant coryneform bacteria
SO U.S., 12 pp.
CODEN: USXXAM
AB The present invention provides a DNA fragment derived from Coryneform bacteria and contg. a gene coding for a protein having sucrase activity and a recombinant DNA vector contg. said DNA fragment and capable of expression in Coryneform bacteria. The recombinant DNA is introduced into Coryneform bacteria to enhance their sucrase activity. By using the bacteria having enhanced sucrase activity a method is provided for efficiently producing L-amino acids and nucleic acids in a short period of time. **Lysine**-producing Brevibacterium lactofermentum transformed with a sucrase expression plasmid produced the same amt. of **lysine** (from **sucrose**) in approx. half the time.

L8 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Otsuna, Seiko; Nagase, Kazuo; Tsuchiya, Makoto; Hiroshi, Matsui; Yasuhiko, Yoshihara; Nakamatsu, Tsuyoshi
TI Sucrase gene derived from coryneform bacteria and manufacture of amino acids with recombinant microorganisms
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
AB The present invention provides a DNA fragment derived from Coryneform bacteria and contg. a gene coding for a protein having sucrase activity and a recombinant DNA contg. said DNA fragment. The recombinant DNA is introduced into Coryneform bacteria to enhance their sucrase activity. By using the bacteria having enhanced sucrase activity a method is provided for efficiently producing L-amino acids and nucleic acids in a short period of time. The sucrase gene of Brevibacterium lactofermentum was cloned. B. lactofermentum transformed with this gene and cultured on **sucrose**-contg. substrate produced **lysine** and **glutamic acid** at a greater rate than did the non-transformed parents.

L8 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS

IN Rudolph, Rainer; Kopetzki, Erhard; Fischer, Stephan; Grossmann, Adelbert; Hoell-Neugebauer, Baerbel
TI Immobilized fusion proteins as biocatalysts: preparation and use
SO Ger. Offen., 13 pp.
CODEN: GWXXBX
AB Biocatalysts are prepd. by expressing chimeric genes for enzymes fused to binding peptides in host cells, isolating and binding the fusion proteins to a carrier having affinity for the binding peptide, and using the immobilized biocatalyst for prepn. of a desired product from a substrate. A plasmid encoding .alpha.-glucosidase fused to the hexapeptide Arg6 was prepd. and the chimeric gene expressed in Escherichia coli. The fusion protein was isolated from the cells and immobilized on Fraktogel EMD SO3--650. The resulting biocatalyst was used to prep. **glucose** from **maltose**.

L8 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
AU Markussen, J.; Diers, I.; Engesgaard, A.; Hansen, M. T.; Hougaard, P.; Langkjaer, L.; Norris, K.; Ribel, U.; Soerensen, A. R.; et al.
TI Soluble, prolonged-acting insulin derivatives. II. Degree of protraction and crystallizability of insulins substituted in positions A17, B8, B13, B27 and B30
SO Protein Eng. (1987), 1(3), 215-23
CODEN: PRENE9; ISSN: 0269-2139
AB Pos. charge was added to insulins by substituting the B13 and A17 **glutamic acid** residues with glutamines and B27 threonine with **lysine** or arginine. These substitutions were introduced by site-specific mutagenesis in a gene coding for a single-chain insulin precursor. By tryptic transpeptidation the single-chain precursors were transformed to the double-chain insulin structure, concomitantly with incorporation of residue B30. Thus insulins combining B13 glutamine, A17 glutamine, and B27 **lysine** or arginine with B30 threonine, threonine amide or **lysine** amide were synthesized. The time course of blood **glucose** lowering effect and the absorption were studied after s.c. injection in rabbits and pigs. The prolonged action of B30-substituted insulins was markedly enhanced by B27 **lysine** or arginine substitutions and by B13 glutamine. The B27 residue is located on the surface of the hexamer, so a basic residue in this position presumably promotes the packing of hexamers at neutral pH. The B13 residues cluster in the center of the hexamer. When the electrostatic repulsive forces from 6 **glutamic acid** residues are abolished by substitution with glutamine, a stabilization of the hexamer can be envisaged. The biol. potency of insulins was measured in the free fat cell assay and in the mouse blood **glucose** assay test. A potency factor could be fitted to each substitution, so that the potency of analogs with .gtoreq.2 substitutions can be estd. by multiplication of the corresponding potency factors. A charge-indifferent substitution, B8 glycine to serine, resulted in insulins that crystallize well but have low potencies. A late elution in gradient reverse-phase HPLC indicates that hydrophobic amino acid residues were exposed as a result of this B8 substitution. This most likely results from distortion by the .alpha.-helix commencing at residues B7, permitted only by B8 glycine with dihedral angles (.PHI., .PSI.) of a D-amino acid.

=> d bib 7 18

L8 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 1999:763907 CAPLUS
DN 132:6372
TI Stable therapeutic **gene preparations**
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko; Nagahara, Shunji
PA Sumitomo Pharmaceuticals Company, Limited, Japan; Koken Co., Ltd.
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9961063	A1	19991202	WO 1999-JP2595	19990519
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9938488	A1	19991213	AU 1999-38488	19990519
	EP 1078639	A1	20010228	EP 1999-921163	19990519
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
PRAI	JP 1998-141426	A	19980522		
	WO 1999-JP2595	W	19990519		

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L9 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Farwick, Mike; Mockel, Bettina; Pfefferle, Walter
TI Use of ptsH gene of Corynebacterium glutamicum for L-lysine biosynthesis
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 755,187.
CODEN: USXXCO

L9 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Nucleotide sequences coding for the genes sucC and sucD
SO U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 728,498.
CODEN: USXXCO

L9 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, K. Madhavan; Mockel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Protein and gene sequence of the cma gene encoded cyclopropane-mycolic acid synthase of Corynebacterium glutamicum
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 577,857, abandoned.
CODEN: USXXCO

L9 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Voss, Carsten
TI Preparation of supercoiled plasmid DNA by culture of bacteria in a defined

medium
SO Ger. Offen., 22 pp.
CODEN: GWXXBX

L9 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Nampoothiri, Madhavan; Moeckel, Bettina; Eggeling, Lothar; Sahm, Hermann
TI Genetically modified Coryneform bacteria with overexpressed cma **gene** and uses thereof in fermentative **preparation** of L-amino acids
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2

L9 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Nakai, Yuta; Ito, Hisao; Kurahashi, Osamu
TI Process for producing l-amino acid and novel gene
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2

L9 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Mockel, Bettina; Pfefferle, Walter; Marx, Achim
TI Corynebacterium succinate dehydrogenase genes sdhA, sdhB, and sdhC and amino acid production with recombinant coryneform bacteria
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW

L9 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Terada, Masaaki; Ochiya, Takahiro; Sano, Akihiko; Hisada, Akihiko; Nagahara, Shunji
TI Stable therapeutic **gene preparations**
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2

L9 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Ishihara, Hiroshi; Kawaguchi, Takayuki; Ikeda, Masahiro; Nakamoto, Kazutaka; Sasaki, Atsushi
TI Preparation of sugar amidite derivatives and antisense oligonucleotide derivatives as antiviral and antitumor agents
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2

L9 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
TI Pharmaceutical composition for preserving recombinant virus vectors for gene therapy
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2

L9 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Tsuchiya, Makoto; Miwa, Kiyoshi
TI Sucrase gene of coryneform bacteria and manufacture of amino acids or nucleic acids with recombinant coryneform bacteria
SO U.S., 12 pp.
CODEN: USXXAM

L9 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Sugimoto, Masakazu; Otsuna, Seiko; Nagase, Kazuo; Tsuchiya, Makoto; Hiroshi, Matsui; Yasuhiko, Yoshihara; Nakamatsu, Tsuyoshi
TI Sucrase gene derived from coryneform bacteria and manufacture of amino acids with recombinant microorganisms
SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

L9 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS
IN Rudolph, Rainer; Kopetzki, Erhard; Fischer, Stephan; Grossmann, Adelbert; Hoell-Neugebauer, Baerbel
TI Immobilized fusion proteins as biocatalysts: preparation and use
SO Ger. Offen., 13 pp.
CODEN: GWXXBX

L9 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS
AU Markussen, J.; Diers, I.; Engesgaard, A.; Hansen, M. T.; Hougaard, P.; Langkjaer, L.; Norris, K.; Ribel, U.; Soerensen, A. R.; et al.
TI Soluble, prolonged-acting insulin derivatives. II. Degree of protraction and crystallizability of insulins substituted in positions A17, B8, B13, B27 and B30
SO Protein Eng. (1987), 1(3), 215-23
CODEN: PRENE9; ISSN: 0269-2139

=> d 9 10 bib ab 19

L9 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
AN 1996:746190 CAPLUS
DN 126:19171
TI Preparation of sugar amidite derivatives and antisense oligonucleotide derivatives as antiviral and antitumor agents
IN Ishihara, Hiroshi; Kawaguchi, Takayuki; Ikeda, Masahiro; Nakamoto, Kazutaka; Sasaki, Atsushi
PA Drug Delivery System Institute, Ltd., Japan
SO PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9630386	A1	19961003	WO 1996-JP868	19960329
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
	CA 2216844	AA	19961003	CA 1996-2216844	19960329
	AU 9651227	A1	19961016	AU 1996-51227	19960329
	EP 821001	A1	19980128	EP 1996-907728	19960329
	R: CH, DE, FR, GB, LI, NL, SE				
	US 6057431	A	20000502	US 1997-930677	19971202
PRAI	JP 1995-100009		19950331		
	WO 1996-JP868		19960329		

OS MARPAT 126:19171
AB Compds. represented by general formula X(CH2)m(T5)r(CH2)nCH[(CH2)pT3T1F1](CH2)qT4T2F2 [X = NCCH2CH2OP(Y)O, Z-OP(O)(OH)O; Y = leaving group; Z = oligonucleotide or its deriv.; T1 = (CH2)s, (CH2CH2O)tCH2CH2; wherein s = 2-10; t = 1-3; T2 = (CH2)u, (CH2CH2O)vCH2CH2, Q; T3, T4, T5b = CONH, NHCO, O; provided that when either one of T3, T4, and T5 represents O, the other

two groups represent group other than O; F1, F2, F3 = monosaccharide selected from **galactose**, **glucose**, and galactosamine or its deriv., disaccharide consisting of these monosaccharide or their derivs., wherein hydroxy groups not participating in the reaction of mono-
and disaccharides or their deriv. are optionally protected; m = 0-10; n, p, q = 0-4; r = 0,1]. These compds. can specifically transfer oligonucleotides into cells that specifically recognize specified sugar structures, inhibit expression of specific genes in cells of organs (in particular liver), and hence can be used as antiviral, antitumor, antirheumatic, antiinflammatory, and antiallergic agents, and immunosuppressants. Thus, tris[2-[2-(2-.beta.-D-galactopyranosyloxyethoxy)ethoxy]ethyl]-modified oligonucleotide phosphorothioate (glycopeptide) (I; R = Q1, wherein R1 = H), which was prepd. by the phosphoramidite method using a Cyclone Plus Nucleic Acid Synthesizer (Millipore) and phosphoramidite NCCH2CH2P[N(CHMe2)2]O(CH2)3CO-
Gln(R)-Gln(R)-NHR (R = Q, wherein R1 = Ac) (prepn. given), at .apprx.1 .mu.M increased the proliferation-inhibiting activity for HepG2 cells .apprx.7 times greater than that of 5'-GGACTCAGACTCGCGTCC-3' phosphorothioate.

L9 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
AN 1996:685381 CAPLUS
DN 125:309076
TI Pharmaceutical composition for preserving recombinant virus vectors for gene therapy
IN Kuma, Hidekazu; Iijima, Osamu; Suzuki, Yousuke
PA Hisamitsu Pharmaceutical Co., Inc., Japan
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9629096	A1	19960926	WO 1996-JP652	19960315
	W: AU, CA, CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9649544	A1	19961008	AU 1996-49544	19960315
	EP 872249	A1	19981021	EP 1996-906024	19960315
	R: CH, DE, FR, GB, LI, NL				
	JP 3193057	B2	20010730	JP 1996-528274	19960315
	US 5869306	A	19990209	US 1997-913592	19970912
PRAI	JP 1995-59261	A	19950317		
	WO 1996-JP652	W	19960315		

AB A process for producing **gene** transfer **prepns**. by freeze-drying a mixt. of a recombinant virus vector with at least one additive selected among arginine, **glutamic acid** (or sodium salt thereof), serine, **glucose**, inositol, **lactose**, **mannitol**, **sorbitol**, **trehalose** and xylose. The prepn. is to preserve the potency of the recombinant virus vectors. Prepn. of a compn. contg. recombinant MoMLV vector was shown.

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